

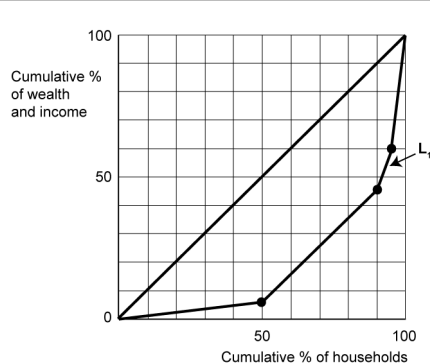
## Assessment Schedule – 2008

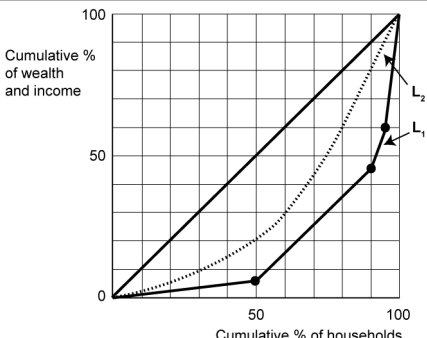
## Economics: Describe market failure and government interventions to correct for market failure (90631)

## Evidence Statement

Code	Question	Evidence	Achievement	Achievement with Merit	Achievement with Excellence
A1	One (a) (i)		SMC labelled correctly – either MSC or SMC drawn left of MC.		
A1	(ii)		$Q_s$ labelled AND located at intersection of SMC & MB.		
A1	(iii)		Q labelled AND located at intersection of MC & MB.		
A1 or M1	(b)	<p>Idea of:</p> <p><b>(I)</b> In an unregulated market, producers take account only of their private costs and benefits, so produce at intersection of MC &amp; MB, OR have spillover costs OR is underpriced and overproduced, ie <b>Q</b>.</p> <p><b>(E)</b> However, the socially efficient level of output, <math>Q_s</math> is achieved when MC shifts to SMC (where <math>SMC = [S]MB</math>). <i>Meaning the unregulated market has overproduced (and undercharged), so fails. (Q)</i></p> <p>OR</p> <p><b>(E)</b> But the total gains from trade (CS + PS) at the free market equilibrium don't cover all the spillover costs (gap between MC + SMC) with some being passed onto third parties resulting in DWL (see shaded area on graph) and so the free market fails. <b>(Q)</b></p>	A partial answer that has EITHER the I OR an E point OR has BOTH but may also have a significant error.	Has BOTH I AND an E point in explanation.	
A2*	(c)	<p>Idea of:</p> <p>It would shift MC to the left, as firms that emit "greenhouse gases" (GHGs) have to buy emissions units to cover their emissions. Must refer to the graph in some way.</p>	Correctly identifies an effect of emissions trading.		
A2	(d)	<p>Examples:</p> <ul style="list-style-type: none"> <li>could impose a sales tax on products whose production emit GHGs (which decreases profitability by reducing the price received by firms to <math>P_{Pr}</math>)</li> <li>could impose a carbon tax on producers raising their costs and shifting MC</li> </ul>	Correctly identifies another policy that would internalise the externality.		

		<p>towards SMC</p> <ul style="list-style-type: none"> <li>could impose regulation on pollution amounts, eg tax on emissions.</li> </ul>			
A2 or M2 <sup>EF</sup>	(e) (i)		No mark for (i).		
	(ii)	<p><b>(I)</b> Firms with emissions trading have an incentive to find non-emitting ways of producing in order to increase profits. OR a cap set by the government sets an overall limit or Quantity of GHG which will decrease amount produced.</p> <p><b>(E)</b> Because if firms don't emit GHGs, they don't have to buy emissions units and so the increased costs of production are avoided, increasing profitability. Since non-emitting is relatively more profitable, emissions of GHGs should fall. <b>(Q)</b></p> <p><b>Note:</b> Candidates may identify weaknesses with the New Zealand emissions trading scheme (like the delay in its application to the agricultural sector) that counter the market signal explanation and cause GHGs to increase or at least not decrease.</p>	<p>A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.</p>	Has BOTH I AND E points in explanation.	
A2	(f) (i)	Eg: Regulation that bans production of products that emit GHGs	No mark for (i).		
A2 or M2 <sup>EQ</sup>	(ii)	<p>Eg: Emissions Trading</p> <p><b>(I)</b> With emissions trading, firms that emit the most GHGs face the highest increase in costs of production because they will have to buy more emissions units. OR Firms that pollute are being charged for polluting and firms that are not polluting and reducing emissions are rewarded.</p> <p><b>(E)</b> Because firms causing the greatest damage to the environment are being charged the most. This is fair / equitable. <b>(Q)</b></p> <p>Must compare firms that pollute with non-polluters. If tax on outputs used as an example, (E) could include: Govt can use income from the tax to benefit the community that have to deal with the emissions (suffer the effects) / clean up the pollution.</p>	<p>A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.</p>	Has BOTH I AND E points.	

A1	Two (a)	<table><tr><th>Good or Service</th><th>Public Good</th><th>Private Good</th><th>Merit Good</th></tr><tr><td>State schools</td><td></td><td></td><td>✓</td></tr><tr><td>Ice creams</td><td></td><td>✓</td><td></td></tr><tr><td>Street lights</td><td>✓</td><td></td><td></td></tr><tr><td>Rural Roads</td><td>✓</td><td></td><td></td></tr><tr><td>Public hospitals</td><td></td><td></td><td>✓</td></tr></table>	Good or Service	Public Good	Private Good	Merit Good	State schools			✓	Ice creams		✓		Street lights	✓			Rural Roads	✓			Public hospitals			✓	All correctly identified.		
Good or Service	Public Good	Private Good	Merit Good																										
State schools			✓																										
Ice creams		✓																											
Street lights	✓																												
Rural Roads	✓																												
Public hospitals			✓																										
A2	(b)	(Any goods in table except ice creams.) Eg: rural roads are an example of a collective good because they are provided by government out of the general tax pool.	Correctly identifies an example AND describes a collective good.																										
A1 or M1	(c)	Idea of: <b>(I)</b> Public goods are non-excludable by price because there is no way to stop free-riders from using them. <b>(E)</b> As a result, firms that supply public goods would not earn enough revenue to cover costs/make a profit. So private firms are not prepared to supply them. <b>(Q)</b>	A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.	Has BOTH I AND E points in explanation.																									
A1	Three (a)	<table><tr><th>% of Households</th><th>% of Wealth and Income</th><th>Cumulative % of Wealth and Income</th></tr><tr><td>Bottom 50</td><td>5</td><td>5</td></tr><tr><td>Next 40</td><td>40</td><td>45</td></tr><tr><td>Next 5</td><td>15</td><td>60</td></tr><tr><td>Top 5</td><td>40</td><td>100</td></tr></table>	% of Households	% of Wealth and Income	Cumulative % of Wealth and Income	Bottom 50	5	5	Next 40	40	45	Next 5	15	60	Top 5	40	100	All THREE correct.											
% of Households	% of Wealth and Income	Cumulative % of Wealth and Income																											
Bottom 50	5	5																											
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A2	(b)		Lorenz curve correctly plotted and labelled L <sub>1</sub> .																										
A1 or M1	(c)	Ideas of: <b>(I)</b> In a market system, incomes are allocated by the forces of supply and demand (in factor markets) and supply and demand are different in each market. <b>(E)</b> If you have skills to produce products that are demanded, you earn income	A partial answer that has EITHER the I OR the E point OR has BOTH but may also	Has BOTH I AND E points in explanation.																									

		(and if the product demand is high and the number with the skills to produce it is small, you earn a high income). Because supply and demand are different in different markets, uneven incomes are earned. <b>(Q)</b>	have a significant error.		
A2 or M2 <sup>EF</sup>	(d) (i)	Idea of: <b>(I)</b> A regressive tax taxes low-income earners at a higher rate than high income earners. Low income earners spend a higher <u>proportion</u> of their income than high income earners (who can afford to save) <b>(E)</b> so a greater percentage of their income is exposed to GST tax. So it is regressive. <b>(Q)</b>	A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.	Has BOTH I AND E points in explanation.	
A2#	(ii)		L <sub>2</sub> correctly drawn and closer to line of equality than L <sub>1</sub> (arrow showing movement acceptable).		
A2 or M2 <sup>EF</sup>	(d) (iii)	Eg: <b>(I)</b> An increase in the unemployment benefit will result in a decrease in efficiency (with an attempt to answer why). <b>(E)</b> Guaranteeing income will result in a decrease in the supply of labour because some people receiving the unemployment benefit will opt not to work (because they get paid even if they don't work). OR funds could be used to improve infrastructure OR funds could be wasted paying for administration costs. <i>So less is produced and a loss of efficiency occurs. (Q)</i> <b>Note:</b> logical explanations of why efficiency increased acceptable.	A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.	Has BOTH I AND E points in explanation.	
A2 or M2 <sup>EQ</sup>	(d) (iv)	Eg: <b>(I)</b> An increase in the unemployment benefit will increase equity (with an attempt to answer why). <b>(E)</b> Since low-income families receive an increase in income, the number of low-income families will decrease, resulting in a more even income distribution. So equity improves. <b>(Q)</b> <b>Note:</b> logical explanations of why equity decreased acceptable	A partial answer that has EITHER the I OR the E point OR has BOTH but may also have a significant error.	Has BOTH I AND E points in explanation.	

E2	<b>One</b> (c) (e)(ii)  <b>Three</b> (d) (iii)	A2* M2 <sup>EF</sup>  M2 <sup>EF</sup>			ALL
E2	<b>One</b> (f)(ii)  <b>Three</b> (d) (ii) (d) (iv)	M2 <sup>EQ</sup>  A2# M2 <sup>EQ</sup>			ALL

### Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
<b>Minimum of:</b> 1 × A1 <i>and</i> 1 × A2  <i>and</i> 6 other A or M or E	<b>Minimum of:</b> 1 × M1 <i>and</i> 1 × M2 <i>and</i> 1 other M or E <i>and</i> 1 × A1 <i>and</i> 1 × A2  <i>and</i> 6 other A or M or E	<b>Minimum of:</b> 1 × E2 <i>and</i> 1 × M1 <i>and</i> 1 × M2 <i>and</i> 1 other M or E <i>and</i> 1 × A1 <i>and</i> 1 × A2 <i>and</i> 6 other A or M or E

**Codes:**

A1 and M1 refer to the first criterion.

A2, M2, and E2 refer to the second criterion.